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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/611,680

07/02/2003

Kari Horneman

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11/27/2006

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EXAMINER

DOAN, KIET M

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/611,680

Applicant(s)

HORNEMAN, KARI

Examiner

Kiet Doan

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2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 03/02/04.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. **Claims 14, 31** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Consider claims 14, 31 the word “**about**” renders the claim indefinite because the word “**about**” does not positively identify the claimed limitation.¹

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 3, 6, 11-13, 15-18, 21, 23, 28-30, 32-41, 43** are rejected under 35 U.S.C. 103(a) as being unpatentable over Quayle et al. (Patent No. 6,865,169) in view of Hamada (Patent No. 6,915,131).

Consider **claims 1 and 18**. Quayle teaches a method for allocating information transfer capacity in a mobile communication system, the mobile communication system comprising a base station and a mobile station, the method comprising:

forming a connection between the base station and the mobile station,

requesting for allocation of information transfer capacity to the mobile station (Abstract, C1, L56-67, C2, L1-15, C4, L8-40 teach communication between the base station and subscriber terminal and contain allocation of information transfer capacity to the subscriber terminal). Quayle teaches the limitation of claims as discuss **but silent on**

and connecting the mobile station to a service site formed by a remote station of the base station, the service site being located inside the cell formed by the base station, the service site using the same radio interface as the cell, the service site providing the mobile station with higher information transfer capacity than the cell, the remote station being controlled by the base station, and the traffic of the remote station being routed via the base station; and

transferring information by using the service site.

In an analogous art, Hamada teaches "Communicating apparatus, communication system, communicating method, and storage medium". Further, **Hamada teaches** and connecting the mobile station to a service site formed by a remote station of the base station (Fig.1, Illustrate terminal No.111 as read on mobile station and connecting to service zone as read on service site), the service site being located inside the cell formed by the base station, the service site using the same radio interface as the cell, the service site providing the mobile station with higher information transfer capacity than the cell, the remote station being controlled by the base station, and the traffic of the remote station being routed via the base station; and transferring information by using the service site (Abstract, C2, L32-67, C3, L55-67, C4, L1-56,

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Fig.1, Illustrate base station No.112a/b form service site No.114-116 wherein service site provide information to mobile station which traffic routed via the base station).

Therefore, it would have been obvious at the time that the invention was made that person having ordinary skill in the art to modify Quayle and Hamada system, such that base station communication with mobile station and allocation of information transfer capacity to the mobile station wherein base station transferring information by using the service site to provide means for maximize allocated the capacity of mobile terminal communication with base station in a service site with low cost.

Consider **claims 3, 21**. Quayle teaches a method as claimed in claim 1, further comprising connecting the mobile station to the service site by using a different physical radio channel in the service site than that used in the cell (C8, L37-65).

Consider **claims 6, 23**. Quayle teaches a method as claimed in claim 1, further comprising controlling the transmit power of the remote station according to the information transfer capacity requirement of the mobile station after the mobile station has been connected to the service site (C6, L13-25).

Consider **claims 11-13, 28-30**. Quayle teaches a method as claimed in claim 1, further providing the mobile station with accessibility information on the service site (C1, L43-61).

Consider **claims 15-17, 32-34**. Quayle teaches a method as claimed in claim 1, wherein the operating range of the service site depends on the free path of the mobile station (C4, L11-20, C6, L13-40 teach operating range of the service).

Consider **claim 35**. Quayle teaches a mobile communication system as claimed in claim 18, wherein the remote station is configured to confine the transmit power to 10 nW. (C6, L45-6, C1, L1-3).

Consider **claim 36**. Quayle teaches a mobile communication system as claimed in claim 18, wherein the main station comprises means for transmitting traffic from the remote station and for receiving traffic at the remote station (C4, L40-63, Fig.1, Illustrate and described limitation).

Consider **claim 37**. Quayle teaches a mobile communication system as claimed in claim 18, wherein the main station comprises means for controlling the remote station (C4, L40-63).

Consider **claim 38**. Quayle teaches a mobile communication system as claimed in claim 18, wherein the base station comprises means for transferring signals between the main station and the remote station (Fig.1, Illustrate bases station No.11 transferring between the main station No.17 and the remote station No.10).

Consider **claim 39**. Quayle teaches a mobile communication system as claimed in claim 18, wherein the remote station comprises means for radio transmission and reception (C4, L40-67, C5, L1-3).

Consider **claim 40**. Quayle teaches a mobile communication system as claimed in claim 18, wherein the remote station comprises means for signal processing (Fig.1, Illustrate No.10 as remote station contain signal processing).

Consider **claim 41**. Quayle teaches a mobile communication system as claimed in claim 18, wherein the remote station comprises means for storing information (C4, L40-67, C5, L1-3).

Consider **claim 43**. Quayle teaches a mobile communication system as claimed in claim 18, wherein the remote station comprises a control unit for controlling local functions of the remote station (C4, L40-67, C5, L1-3, Fig.1 and Fig.4 Illustrate and described).

3. **Claims 2, 4-5, 7-8, 9-19, 14, 22, 24-27, 31, 42, 44** are rejected under 35 U.S.C. 103(a) as being unpatentable over Quayle et al. (Patent No. 6,865,169) in view of Hamada (Patent No. 6,915,131) further view of Gleeson (Pub. No. 2002/0136174).

Consider **claims 2, 19-20**. Astrin and Hamada teaches the limitation of claims as discuss **but silent on** a method as claimed in claim 1, further comprising detecting in the mobile station, before requesting for allocation of information transfer capacity to the mobile station, a need to allocate information transfer capacity to the mobile station.

In an analogous art, Gleeson teaches "Communication device having proximity controlled transmission". Further, **Gleeson teaches** a method as claimed in claim 1, further comprising detecting in the mobile station, before requesting for allocation of information transfer capacity to the mobile station, a need to allocate information transfer capacity to the mobile station (Paragraphs [0018-0021], [0035] teach detecting the present communication device No.12).

Therefore, it would have been obvious at the time that the invention was made that person having ordinary skill in the art to modify Astrin and Hamada system, such that detecting in the mobile station, before requesting for allocation of information transfer capacity to the mobile station to provide means for keeping the users communication service without interruption.

Consider **claims 4**. Gleeson teaches a method as claimed in claim 1, further comprising connecting the mobile station to the service site based on an intentional act

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of the user of the mobile station to use the service site (Paragraphs [0020-0021] teach communication device No.12 operated with communication system which inherent an intentional act of the user of the mobile station to use the service site).

Consider **claims 5, 22**. Gleeson teaches a method as claimed in claim 1, further comprising decreasing, the transmit power of the mobile station to a predetermined level after the mobile station has been connected to the service site (Paragraphs [0015-0018]).

Consider **claims 7, 10, 26-27**. Hamada teaches a method as claimed in claim 1, further comprising disconnecting the mobile station from the service site after the information has been transferred (C10, L47-56).

Consider **claims 8, 24**. Gleeson teaches a method as claimed in claim 1, further comprising determining the location of the mobile station before the mobile station has been connected to the service site (Paragraphs [0035]).

Consider **claims 9, 25**. Gleeson teaches a method as claimed in claim 1, further comprising connecting the mobile station to the service site whenever the mobile station

Consider **claims 14, 31**. Hamada teaches a method as claimed in claim 1, further comprising informing the user about the location of the service site with visual

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signs (Fig.1, Illustrate service site as LAN, ATM which means as visual signs).

Consider **claim 42**. Official notice a mobile communication system as claimed in claim 18, wherein the remote station comprises means for beam forming is well know and described in Garani. et al. (6,983,162).

Consider **claim 44**. Hamada teaches a mobile communication system as claimed in claim 18, wherein the remote station comprises leaky cables for forming an elongated radiation pattern (Fig.1, Illustrate the control device No.113 which connected and can be leaky cables for forming an elongated radiation pattern).

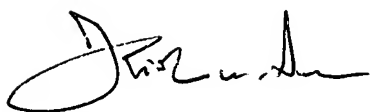
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet Doan whose telephone number is 571-272-7863. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kiet Doan
Patent Examiner



JOSEPH FEILD
SUPERVISORY PATENT EXAMINER